Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A structure comprising:

at least one proportional variable resistor suitable for electrically measuring unidirectional misalignment of stitched masks in etched interconnect layers, said variable resistor comprising:

at least a first mask and a second mask that when superimposed comprise:

at least two test pads, wherein the two test pads are both formed by the first mask;

two interconnects between the test pads; and

a contact having a smaller width than widths of the interconnects, wherein the width of the contact is a dimension substantially orthogonal to a direction of signal propagation along the contact, and the widths of the interconnects are dimensions substantially orthogonal to directions of signal propagation along the interconnects, wherein the contact is formed by the same mask as at least one of the interconnects, wherein a resistance between the test pads is dependent on a distance along the contact between the interconnects, and the resistance is indicative of the misalignment of the first and second masks.

2. (previously presented) The structure according to claim 1 wherein the variable resistor comprises a directly proportional variable resistor which exhibits an increased resistance based on a greater distance along the contact between the interconnects due to a greater overlap of one of the interconnects with an adjacent test pad.

3. (previously presented) The structure according to claim 1 wherein the variable resistor comprises an inversely proportional variable resistor which exhibits a decreased resistance based on a shorter distance along the contact between the interconnects due to a greater overlap of one of the interconnects with an adjacent test pad.

4. (previously presented) The structure according to claim 1 wherein the interconnects comprise at least one stick type interconnect of a substantially rectangular geometry.

5. (previously presented) The structure according to claim 1 wherein the interconnects comprise at least one hook type interconnect, wherein the hook type interconnect comprises:

an intermediate portion which is non-linear within a plane of the corresponding mask; and

two ends separated by the intermediate portion, wherein both of the ends extend from the intermediate portion in substantially the same direction.

6. (currently amended) A system for electrically measuring unidirectional misalignment of stitched masks in etched interconnect layers, said system comprising:

at least one proportional variable resistor comprising:

a reference mask comprising at least two test pads and at least one interconnect; and

a second mask comprising at least one interconnect and a contact, wherein the contact has a smaller width than widths of the interconnects, wherein the width of the contact is a dimension substantially orthogonal to a direction of signal propagation along the contact, and the widths of the interconnects are dimensions substantially orthogonal to directions of signal propagation along the interconnects, wherein a resistance between the test pads is dependent on a distance along the contact between the interconnects; and

a probe for testing the resistance between the test pads along said interconnect of said reference mask and said interconnect and said contact of said second mask when said masks are superimposed.

7. (previously presented) The system according to claim 6, the at least one interconnect of said reference mask comprising at least one stick type interconnect of a substantially rectangular geometry.

8. (previously presented) The system according to claim 6, the at least one interconnect of said reference mask comprising at least one hook type interconnect, wherein the hook type interconnect comprises:

an intermediate portion which is non-linear within a plane of the corresponding mask; and

two ends separated by the intermediate portion, wherein both of the ends extend from the intermediate portion in substantially the same direction.

9. (previously presented) The system according to claim 6, the at least one interconnect of said second mask comprising at least one stick type interconnect of a substantially rectangular geometry.

10. (previously presented) The system according to claim 6, the at least one interconnect of said second mask comprising at least one hook type interconnect, wherein the hook type interconnect comprises:

an intermediate portion which is non-linear within a plane of the corresponding mask; and

two ends separated by the intermediate portion, wherein both of the ends extend from the intermediate portion in substantially the same direction.

11. (previously presented) The system according to claim 6, wherein the variable resistor comprises an inversely proportional variable resistor which exhibits a decreased

resistance based on a shorter distance along the contact between the interconnects due to a greater overlap of one of the interconnects with an adjacent test pad.

12. (previously presented) The system according to claim 6, wherein the variable resistor comprises a directly proportional variable resistor which exhibits an increased resistance based on a greater distance along the contact between the interconnects due to a greater overlap of one of the interconnects with an adjacent test pad.

13. (currently amended) A method of measuring stitched mask misalignment in etched interconnect layers, the method comprising:

providing a reference mask comprising at least two test pads and at least one interconnect;

providing a second mask comprising at least one interconnect and a contact, wherein the contact has a smaller width than widths of the interconnect on the second mask, wherein the width of the contact is a dimension substantially orthogonal to a direction of signal propagation along the contact, and the widths of the interconnects are dimensions substantially orthogonal to directions of signal propagation along the interconnects;

superimposing said reference mask and said second mask to provide at least one proportional variable resistor between the test pads over the interconnect of the reference mask and the interconnect and the contact of the second mask, wherein the resistance between the test pads is dependent on a distance along the contact between the interconnect of the reference mask and the interconnect of the second mask; and

electrically measuring the resistance of said at least one proportional variable resistor.

14. (previously presented) The method according to claim 13 further comprising establishing an optimum resistance between said test pads, wherein the optimum resistance corresponds to a configuration in which the reference mask and the second mask are aligned.

15. (previously presented) The method according to claim 14 further comprising:
comparing the measured resistance to said optimum resistance; and
adjusting the position of said masks to alignment.

16. (canceled)

17. (canceled)

18. (previously presented) The structure according to claim 1, wherein the variable resistor is formed by at most two layers comprising the first and second masks.

19. (canceled)

20. (previously presented) The structure according to claim 1, wherein the contact extends laterally away from the interconnect of the mask with which the contact is formed.

21. (previously presented) The system according to claim 6, wherein the contact extends laterally away from the interconnect of the second mask.

22. (previously presented) The structure method according to claim 13, wherein the contact extends laterally away from the interconnect of the reference mask.